Title of project

MEMBER NAMES IN YOUR PROJECT
BSTA 515, Fall 2024, OHSU-PSU School of Public Health

SUMMARY

..... Optional .....

Key Words. ....new terms in your topic that you think readers may need to pay more attention.

1. INTRODUCTION

Write about the topic you are working on. Why is such a topic attracting to many current scientists/researchers? Why are you interested in this topic. Try to convince the readers it is a good topic and worthwhile to investigate further. And many more...

2. STUDY BACKGROUND

Cite as many as possible about previous studies related to your topic. What problems have been addressed? Do you think the results from previous studies are helpful to your project? What would you plan for data management and analysis using SAS. In term of analysis results, do you try to confirm existing findings, or try to address new problems that haven't done before, and something else.

When you cite a reference, you should do as the followings:

For example:

Jones(1993) has shown that .....

or

It has been shown that .....[1].

Describe your study (e.g., where did it take place?, how were the data collected, what are the backgrounds of participants in the data; for example, age, sex, ethnicity, education level, demographic and geographic features, and etc.) Note that these steps depends on what you have literature search for the data (described below) that you have used for this project. Make sure you describe well about the sample used in this project.

Note: For data resources of this project, we will use the data from USRDS database. Please visit the following link to better understand the project goal link. You're encouraged to explore all data and additional resources that I have shared with you (shared folder invitation.

Please check your email for such invitation) in OneDrive.

You are strongly suggested to explore more about the data resources from online search.

• You need to do some online literature search to see what kind of research topics which people have done and discussed associated to the USRDS database. This work usually takes quite some time. The more you invest your time and efforts on this step, the better and clearer you are able to decide what you want to do with your project.

Make sure you address your specific aims/questions of interests and hypotheses.

• Read the documentation about USRDS and code book to know more about the data.

• Form specific aims/questions of interests. State the hypotheses.

Note: you could have more sub-aims and sub-hypotheses if needed.

3. REPORT

Expectation: Your project should be included as much material covered in class as possible. **For data management in SAS**, you need to incorporate PROC SQL, DATA step, ODS, Macro, etc. More particularly, your project, should include the following: merging (or linking) data from multiple data resources (i.e., multiple tables or data files), system defined format (e.g., informat, format), user defined format (e.g., proc format) and labeling, using all possible ODS options for output, using SAS Macro when possible, and many more...
For statistical analysis, you may consider statistical analysis plan that helps you to address the aims. The statistical tools include regression analysis, generalized linear models such as logistic regression, poisson regression. You are encouraged to explore (zero-inflated) poisson regression, (zero-inflated) negative binomial, (zero-inflated) gamma model if you're interested. These models are commonly seen in practice. You need to write a report interpreting your analysis results in the context of the project, model diagnostics, comparing your results with those from the papers you have cited as references, and pointing out some advances/disadvantages of data resources you have used, the approaches you have done, and even limitations of the data, etc.

Note: For quantitative analysis, besides descriptive statistics (e.g., mean+/-SD, median, IQR, Q1, Q2, Q3, min, max, etc. for quantitative variables, frequency table for categorical variables, graphs, etc.) you should perform bivariate analysis, multiple variable/ multivariate analysis. In term of estimation, you should show and discuss some results of estimates along with 95 % CIs and p-value for the quantities of interest.

Discuss (and/or explain) the results.

Note: Writing a report of your project requires a description of what you have done in data management and cleaning, interpretation and explanation the results and findings. **Your report must**

be written so clearly that someone who doesn't know, or knows little about statistics can understand your work.

Please do not put the whole software output in your report. Again describe what you have done and how to interpret the output are what you should do in your report.

Please submit your SAS code (saved in .sas script files) and their output (saved in .pdf, .html, .rtf, .xlsx, etc.) along with the report (in .pdf or word document) and log file as well.

Please pay attention on how you organize appendix indexes so a reader can follow and check your work.

4. DISCUSSION

Highlight your findings and comparison results. Point out the advantage(s)/disadvantage(s)(or limitations) of your work. Proposed some future work to overcome such challenges. Discuss some drawbacks if possible. Point out the advantage(s)/disadvantage(s)(or limitations) of the proposed statistical method you have used to analyze your data. What would be better tool to apply to your data, if possible? Address some limitations due to restricted demographics and geographical features. And more ... Propose some future work for further justification.

5. APPENDIX

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6. REFERENCES

Cite all references you have used in your project as the following format

References

[1] Jones, R.H., (1993) *Longitudinal Data with Serial Correlation A State-Space Approach*, Chapman and Hall, New York.

[2] Laird, N. M. & Ware, J. M. (1982), Random effects models for longitudinal data, *Biometrics* 38, 963–974.

[3] McCullagh, P. and Nelder, J. A. (1989). *Generalized Linear Models*, 2nd ed., Chapman and Hall, London.

...

[4] ... and more